The Claims

1. (Previously presented) A system for identifying a subscriber, comprising:

an access server coupled to a plurality of subscribers using a first communication network and further coupled to a second communication network, the access server operable to receive a communication from a particular subscriber using a particular one of a plurality of virtual circuits associated with the first communication network;

a memory coupled to the access server and operable to store path information for the plurality of subscribers, the path information for the particular subscriber identifying a virtual circuit that is pre-assigned to the particular subscriber for communicating with the access server; and

a processor coupled to the memory and operable to:

compare the path information for the particular subscriber to the particular virtual circuit used to receive the communication from the particular subscriber; and

identify the particular subscriber for connection to the second communication network based on the comparison.

2. (Previously presented) The system of Claim 1, wherein:

the access server comprises one of a plurality of access servers coupled to the processor;

the path information for the particular subscriber further identifies an access server assigned to the particular subscriber; and

the processor is further operable to identify the particular subscriber based upon the path information for the particular subscriber and an identifier of the particular access server coupled to the particular subscriber.

3. (Original) The system of Claim 1, wherein the access server comprises:

an interface coupled to the particular subscriber using the particular virtual circuit; and

a controller coupled to the interface and operable to communicate a request identifying the particular virtual circuit that couples the interface and the particular subscriber.

4. (Previously presented) The system of Claim 3, wherein:

the interface comprises a plurality of network line cards;

the path information for the particular subscriber further identifies a network line card assigned to the particular subscriber; and

the processor is further operable to identify the particular subscriber based upon the path information for the particular subscriber and an identifier of a particular network line card coupled to the particular subscriber.

5. (Original) The system of Claim 3, wherein the request comprises:

interface information identifying the interface coupled to the particular subscriber;

virtual circuit information identifying the particular virtual circuit; and

access server information identifying the access server.

6. (Original) The system of Claim 3, wherein the request comprises a RADIUS protocol request.

7. (Original) The system of Claim 3, wherein the request comprises a trivial file transfer protocol request.

8. (Original) The system of Claim 1, wherein the particular virtual circuit is associated with the particular subscriber using a virtual path identifier and a virtual channel identifier.

9. (Previously presented) The system of Claim 1, wherein the path information for the particular subscriber comprises a virtual path identifier and a virtual channel identifier associated with the virtual circuit assigned to the particular subscriber.

10. (Original) The system of Claim 1, wherein the access server supports a communication session between the particular subscriber and the second communication network in response to identifying the particular subscriber.

11. (Previously presented) A method for identifying a subscriber, comprising:

receiving a communication from a particular one of a plurality of subscribers using a particular one of a plurality of virtual circuits associated with a first communication network;

storing path information for the plurality of subscribers, the path information for the particular subscriber identifying a virtual circuit that is pre-assigned to the particular subscriber for communicating with an access server;

comparing the path information for the particular subscriber to the particular virtual circuit used to receive the communication from the particular subscriber; and

identifying the particular subscriber for connection to a second communication network based on the comparison.

12. (Previously presented) The method of Claim 11, wherein:

the particular virtual circuit couples the particular subscriber to a particular one of a plurality of access servers;

the path information for the particular subscriber further identifies an access server assigned to the particular subscriber; and

the step of identifying further comprises identifying the particular subscriber based upon the path information for the particular subscriber and an identifier of the particular access server coupled to the particular subscriber.

13. (Original) The method of Claim 12, wherein the particular access server comprises:

an interface coupled to the particular subscriber using the particular virtual circuit; and

a controller coupled to the interface.

14. (Previously presented) The method of Claim 13, wherein:

the interface comprises a plurality of network line cards;

the path information for the particular subscriber further identifies a network line card assigned to the particular subscriber; and

the step of identifying further comprises identifying the particular subscriber based upon the path information for the particular subscriber and an identifier of a particular network line card coupled to the particular subscriber.

15. (Original) The method of Claim 11, wherein the particular virtual circuit is associated with the particular subscriber using a virtual path identifier and a virtual channel identifier.

16. (Previously presented) The method of Claim 11, wherein the path information for the particular subscriber comprises a virtual path identifier and a virtual channel identifier associated with the virtual circuit assigned to the particular subscriber.

17. (Original) The method of Claim 11, further comprising supporting a communication session between the particular subscriber and the second communication network in response to identifying the particular subscriber.

18. (Previously presented) An information server, comprising:

a memory operable to store path information for a plurality of subscribers coupled to an access server using a plurality of virtual circuits associated with a first communication network, the path information for a particular subscriber in the plurality of subscribers identifying a virtual circuit that is pre-assigned to the particular subscriber for communicating with the access server; and

a processor coupled to the memory and operable to:

compare the path information for the particular subscriber to a particular virtual circuit that couples the particular subscriber to the access server; and

identify a particular subscriber for connection to a second communication network based on the comparison.

19. (Previously presented) The information server of Claim 18, wherein:

the path information for the particular subscriber further identifies an access server assigned to the particular subscriber; and

the processor is further operable to identify the particular subscriber based upon the path information for the particular subscriber and an identifier of the access server coupled to the particular subscriber.

20. (Previously presented) The information server of Claim 18, wherein:

the path information for the particular subscriber further identifies a network line card of the access server assigned to the particular subscriber; and

the processor is further operable to identify the particular subscriber based upon the path information for the particular subscriber and an identifier of the network line card.

21. (Original) The information server of Claim 18, wherein the processor identifies the subscriber in response to receiving a request comprising:

interface information identifying an interface of the access server coupled to the particular subscriber;

virtual circuit information identifying the particular virtual circuit; and

access server information identifying the access server.

22. (Original) The information server of Claim 21, wherein the request comprises a RADIUS protocol request.

23. (Original) The information server of Claim 21, wherein the request comprises a trivial file transfer protocol request.

24. (Original) The information server of Claim 18, wherein the virtual circuit that couples the particular subscriber with the access server is associated with the particular subscriber using a virtual path identifier and a virtual channel identifier.

25. (Previously presented) The information server of Claim 18, wherein the path information for the particular subscriber comprises a virtual path identifier and a virtual channel identifier associated with the virtual circuit assigned to the particular subscriber.

26. (Previously presented) A method for identifying a subscriber, comprising:

receiving a request identifying a particular one of a plurality of virtual circuits associated with a first communication network, wherein the particular virtual circuit is used by an access server to receive a communication from a particular one of a plurality of subscribers;

storing path information for the plurality of subscribers, the path information for the particular subscriber identifying a virtual circuit that is pre-assigned to the particular subscriber for communicating with the access server;

comparing the path information for the particular subscriber to the particular virtual circuit used by the access server to receive the communication from the particular subscriber; and

identifying the particular subscriber for connection to a second communication network based on the comparison.

27. (Previously presented) The method of Claim 26, wherein:

the particular virtual circuit couples the particular subscriber to a particular one of a plurality of access servers;

the path information for the particular subscriber further identifies an access server assigned to the particular subscriber; and

the step of identifying further comprises identifying the particular subscriber based upon the path information for the particular subscriber and an identifier of the particular access server coupled to the particular subscriber.

28. (Original) The method of Claim 27, wherein the particular access server comprises:

an interface coupled to the particular subscriber using the particular virtual circuit; and

a controller coupled to the interface.

29. (Previously presented) The method of Claim 28, wherein:

the interface comprises a plurality of network line cards;

the path information for the particular subscriber further identifies a network line card assigned to the particular subscriber; and

the step of identifying further comprises identifying the particular subscriber based upon the path information for the particular subscriber and an identifier of a particular network line card coupled to the particular subscriber.

30. (Original) The method of Claim 26, wherein the particular virtual circuit is associated with the particular subscriber using a virtual path identifier and a virtual channel identifier.

31. (Previously presented) The method of Claim 26, wherein the path information for the particular subscriber comprises a virtual path identifier and a virtual channel identifier associated with the virtual circuit assigned to the particular subscriber.

32. (Previously presented) An access server, comprising:

an interface coupled to a plurality of subscribers using a first communication network and operable to receive a communication from a particular subscriber using a particular one of a plurality of virtual circuits associated with the first communication network;

a controller coupled to the interface and operable to communicate a request to an information server for identifying the particular subscriber based on a comparison between path information for the particular subscriber and the particular virtual circuit used to receive the communication from the particular subscriber, the path information for the particular subscriber identifying a virtual circuit that is pre-assigned to the particular subscriber for communicating with the access server, the request identifying the particular virtual circuit used to receive the communication from the particular subscriber; and

a route processor coupled to the controller and operable to support a communication session between the particular subscriber and a second communication network in response to identifying the particular subscriber based on the comparison.

33. (Original) The access server of Claim 32, wherein the request comprises:

interface information identifying the interface coupled to the particular subscriber;

virtual circuit information identifying the particular virtual circuit; and

access server information identifying the access server.

34. (Original) The access server of Claim 32, wherein the request comprises a RADIUS protocol request.

35. (Original) The access server of Claim 32, wherein the request comprises a trivial file transfer protocol request.

36. (Previously presented) A method for identifying a subscriber, comprising:

receiving a communication from a particular one of a plurality of subscribers using a particular one of a plurality of virtual circuits associated with a first communication network;

communicating a request to an information server for identifying the particular subscriber based on a comparison between path information for the particular subscriber and the particular virtual circuit used to receive the communication from the particular subscriber, the path information for the particular subscriber identifying a virtual circuit that is pre-assigned to the particular subscriber for communicating with the access server, the request identifying the particular virtual circuit used to receive the communication from the particular subscriber; and

supporting a communication session between the particular subscriber and a second communication network in response to identifying the particular subscriber based on the comparison.

37. (Original) The method of Claim 36, wherein the request comprises:

interface information identifying an interface of an access server coupled to the particular subscriber;

virtual circuit information identifying the particular virtual circuit; and

access server information identifying the access server.

38. (Previously presented) The method of Claim 36, wherein the request comprises a RADIUS protocol request.

39. (Previously presented) The method of Claim 36, wherein the request comprises a trivial file transfer protocol request.

40. (Previously presented) A computer program for identifying a subscriber, the program encoded on a computer-readable medium and operable to execute the following steps:

receiving a communication from a particular one of a plurality of subscribers using a particular one of a plurality of virtual circuits associated with a first communication network;

storing path information for the plurality of subscribers, the path information for the particular subscriber identifying a virtual circuit that is pre-assigned to the particular subscriber for communicating with an access server;

comparing the path information for the particular subscriber to the particular virtual circuit used to receive the communication from the particular subscriber; and

identifying the particular subscriber for connection to a second communication network based on the comparison.

41. (Previously presented) The computer program of Claim 40, wherein:

the particular virtual circuit couples the particular subscriber to a particular one of a plurality of access servers;

the path information for the particular subscriber further identifies an access server assigned to the particular subscriber; and

the step of identifying further comprises identifying the particular subscriber based upon the path information for the particular subscriber and an identifier of the particular access server coupled to the particular subscriber.

42. (Original) The computer program of Claim 41, wherein the particular access server comprises:

an interface coupled to the particular subscriber using the particular virtual circuit; and

a controller coupled to the interface.

43. (Previously presented) The computer program of Claim 42, wherein:

the interface comprises a plurality of network line cards;

the path information for the particular subscriber further identifies a network line card assigned to the particular subscriber; and

the step of identifying further comprises identifying the particular subscriber based upon the path information for the particular subscriber and an identifier of a particular network line card coupled to the particular subscriber.

44. (Original) The computer program of Claim 40, wherein the particular virtual circuit is associated with the particular subscriber using a virtual path identifier and a virtual channel identifier.

45. (Previously presented) The computer program of Claim 40, wherein the path information for the particular subscriber comprises a virtual path identifier and a virtual channel identifier associated with the virtual circuit assigned to the particular subscriber.

46. (Original) The computer program of Claim 40, further comprising supporting a communication session between the particular subscriber and the second communication network in response to identifying the particular subscriber.